

**REMARKS**

Claims 1-6, 8-16, 18-29 and 31-50 are now pending, wherein Claims 1, 8-10, 19, 22-23, 33, 35, 37-39, 42-43, 47-48 and 50 are currently amended, and Claims 7, 17, 30 and 44 are canceled.

Claim 31 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter not enabled in the specification for the reasons set forth at paragraph 2 of the Office Action. Applicant refers to the specification at page 36, lines 15-18, wherein it is disclosed that the motion controller may be connected to the field bus so that it can receive control signals such as stop, start, jog, etc., and parameter signals, such as speed, phase, etc., and can send status signals to the system. Accordingly, Applicant respectfully submits that the specification does provide enabling support for Claim 31. Withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, is respectfully requested.

Claims 7-10, 17, 22 and 30 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for the reasons set forth at paragraph 4 of the Office Action. Applicant has eliminated the use of the term "virtual axis" by the cancellation of Claims 7, 30 and 44, and the amendment of Claims 9 and 10. With respect to the use of the term "capstan motor," Applicant has amended Claim 8 to now refer to a bobbin changer capstan motor, as identified by M15 in Table 1 at pages 31 and 32 of the specification, and as shown in Fig. 27. Claim 17 has been canceled and Claim 22 has been amended to eliminate the term "similar device." Claims 1, 19, 35, 47 and 48 have been broadened by changing "or" to --and/or--. Claims 37-39 and 42-44 have been broadened and clarified by changing "field devices" to --devices--. In view of these amendments, Applicant respectfully submits that all claims are in compliance with 35 U.S.C. § 112, second paragraph. Withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is therefore respectfully requested.

Claims 1-6, 8-29, 31, 34-36, 43-45, 47 and 48 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,463,766 ("Arthur"), for the reasons set forth at paragraph 6 of the Office Action.

Independent Claims 1, 19, 47 and 48 are all directed to a cigarette manufacturing apparatus comprising novel combinations of features including a tobacco rod maker and a

tipper for applying filters to tobacco rods wherein each of the tipper and the rod maker comprises a plurality of devices for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, and wherein one or more of said monitoring devices and said parameter affecting devices both monitors and affects parameters. A controller is also provided for controlling the plurality of devices on the tipper and the rod maker, including varying one or more parameters of the rod maker, the tipper and/or the cigarettes being manufactured in response to conditions monitored by one or more of said devices.

The Office Action appears to rely upon console 23 of Arthur and the disclosure at column 7, lines 13-68 for allegedly anticipating a controller for controlling the plurality of devices on the tipper and the rod maker, including varying one or more parameters of the rod maker, the tipper or the cigarettes being manufactured, in response to conditions monitored by one or more of said devices. The Office Action also relies upon the disclosure at column 7, lines 13-68 of Arthur for allegedly anticipating the feature of the one or more monitoring devices and parameter affecting devices both monitoring and affecting parameters. In Arthur, the speed of a first motor is sensed by generating a pulsed electrical signal directly or indirectly from a rotary part on or associated with a first motor, and the speed of the second motor is sensed by generating a pulsed electrical signal derived directly or indirectly from a rotary part on or associated with a second motor. The "master" motor drives the cut-off device, with other parts of the machine being driven by one or more separate "slave" motors synchronized to the cut-off either as regards speed alone or as regards both speed and phase. Accordingly, Applicant respectfully submits that Arthur does not disclose or suggest the claimed combination of features including a plurality of devices for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, wherein one or more of the monitoring devices and the parameter affecting devices both monitors and affects parameters.

Furthermore, in Arthur, various parts of the machine are driven by separate motors synchronized to the cut-off motor and therefore Arthur does not disclose or suggest the claimed combination of features including a controller for controlling the plurality of devices on the tipper end of the rod maker, including varying one or more parameters of the

rod maker, the tipper and/or the cigarettes being manufactured, in response to conditions monitored by one or more of said devices. Accordingly, Applicant respectfully submits that independent Claims 1, 19, 47 and 48, and hence dependent Claims 2-6, 8-16, 18, 20-34, and 49-50 are patentable over Arthur.

Independent Claim 35 is directed to a method for controlling the manufacture of cigarettes comprising a novel combination of features including a plurality of devices connected to a field bus for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, wherein one or more of the monitoring devices and the parameter affecting devices both monitor and affect parameters, and wherein one or more parameters of the tipper or rod maker are automatically adjusted in accordance with the information content of data received when monitoring the field bus from the controller for the data from the devices. As discussed above, Arthur discloses driving various parts of the machine by separate motors that are synchronized to a cut-off motor. Accordingly, Applicant respectfully submits that Arthur neither discloses nor suggests the claimed combination of features including connecting a plurality of devices to a field bus for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, wherein one or more of the monitoring devices and the parameter affecting devices both monitor and affect parameters, monitoring the field bus from the controller for data from the devices, and automatically adjusting one or more parameters of the tipper or rod maker in accordance with the information content of the data received.

For at least the above reasons, Applicant respectfully submits that independent Claim 35, and hence dependent Claims 36-46 are directed to novel combinations of features that are neither disclosed nor suggested by Arthur.

Claims 32, 33, 37-42, 49 and 50 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arthur in view of Official Notice taken by the Examiner that it would have been well-known to communicate fault information in a manufacturing operation so that the fault can be identified and repaired quickly and waste can be avoided. Applicant respectfully submits that Claims 32, 33, 37-42, 49 and 50 are all patentable over Arthur, whether taken alone or in combination with the Official Notice of the Examiner, for at least

the reasons discussed above. Neither Arthur, nor the Official Notice of the Examiner, provide any disclosure or suggestion of the claimed combination of features including a tipper and a rod maker having a plurality of devices for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, wherein one or more of the monitoring devices and the parameter affecting devices both monitor and affect parameters. Furthermore, neither Arthur, nor the Official Notice of the Examiner provides any disclosure or suggestion of the claimed combination of features including a controller for controlling the plurality of devices on the tipper and the rod maker, including varying parameters of the rod maker, the tipper and/or the cigarettes being manufactured, in response to conditions monitored by one or more of said devices. Additionally, with regard to dependent Claims 37-42, neither Arthur nor the Official Notice of the Examiner provides any disclosure or suggestion of a method of controlling the manufacture of cigarettes including a novel combination of features wherein a plurality of devices are connected to a field bus for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, one or more of the monitoring devices and the parameter affecting devices both monitoring and affecting parameters, and automatically adjusting one or more parameters of the tipper or rod maker in accordance with the information content of data received when monitoring the field bus from the controller for the data from the devices.

Claim 46 is rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Arthur in view of U.S. Patent No. 3,720,815 ("Lorenzen"), for the reasons set forth at paragraph 9 of the Office Action. Applicant respectfully submits that dependent Claim 46 is allowable for the same reasons as discussed above with regard to independent Claim 35, from which it depends. Neither Arthur, nor Lorenzen, whether taken alone or in combination, discloses or suggests a novel combination of features including controlling the manufacture of cigarettes wherein a plurality of devices are connected to a field bus for monitoring and a plurality of devices for affecting parameters of the rod maker, the tipper and/or the cigarettes being manufactured, one or more of the monitoring devices and the parameter affecting devices both monitoring and affecting parameters, and automatically adjusting one or more parameters of the tipper or rod maker in accordance with the

information content of data received by monitoring the field bus from the controller for the data from the devices. Accordingly, withdrawal of all rejections under 35 U.S.C. § 103 is respectfully requested.

***Conclusion***

For at least the foregoing reasons, Applicant respectfully submits that the present patent application is in condition for allowance. An early indication of the allowability of the present patent application is therefore respectfully solicited.

If Examiner Jarrett believes that a telephone conference with the undersigned would expedite passage of the present patent application to issue, the Examiner is invited to call Applicant's representative at the number below.

Respectfully submitted,

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